

*On the two wild species of Sheep inhabiting the Himalayan region, with some brief remarks on the craniological character of Ovis, and its allies.*—By B. H. HODGSON, Esq. Resident at the Court of Nepal.

The great paucity of unquestionably wild species of the genus *Ovis* now found throughout the habitable globe, is a fact that has been employed to cast a speculative doubt upon my announcement (Catalogue of 1832 and 1838,) of two species in the single region of the Himalaya; and the circumstance of my not having been able therefore to give as full and satisfactory an account of the second species as I long ago gave of the first, (see Journal for September, 1835,) from living specimens, has tended to confirm the above mentioned doubt. I am still unpossessed of similar valuable materials for the illustration of this second species, having never been able to procure the animal alive, nor even to obtain a perfect suite of the spoils of a grown male. I have horns, however, of the mature ram, and skulls and skins of others, varying from one to two years in age; and from these, not inadequate materials, I purpose now to furnish a specific character of the Ammon-like, as well as (for the sake of comparison,) of the Musmon-like animal, together with craniological sketches and details relative to both; such as will suffice, I hope, to place beyond further question, the existence of two entirely distinct, new, and peculiar breeds of Sheep in a state of nature in the Himalaya; where indeed, from the unparalleled elevation and extent of the mountains, it need be no rational matter of surprise that they exist.

*Ovis Ammonoïdes, Nob.*—Large wild sheep, with massive strictly trigonal sub-compressed horns, deeper than broad at the base, presenting a flat surface vertically to the front, and cultrated edge beneath, inserted not in contact on the crest of the frontals, remote from the orbits, directed backwards and outwards with a bold circular sweep: the flattened points being again subrecurved outwards and the whole surface covered with numerous heavy complete wrinkles: the forehead flat and broad: the nose scarcely arched, and much attenuated to a fine small muzzle: the ears short, pointed, and striated: the tail short and deer-like, and the limbs fine and elevated: the vesture composed of close, thick, more or less porrect, brittle piles of medial uniform length, concealing a scanty fleece: no beard nor mane: general colour dull slaty

blue, paled on the surface, and more or less tinted with rufous : dorsal ridge dark and embrowned : lips, chin, belly, and insides of limbs near it, dull hoary : limbs externally, below the central flexures, rufescent hoary : snout to base of tail seventy to seventy-two inches : mean height forty-two : head straight to crest of frontals, fourteen : tail with the hair, eight : ears, six : horns, along the curve, forty.

Females smaller, with much smaller, compressed (?) nearly straight horns. Young, with the colours deeper and more sordid. Vulgo, *Banbhéra* and *Bhaāřāl*.

*Ovis Nāhořr*, *Nob.* Medial sized wild Sheep, with moderate, subtrigonal, uncompressed horns, presenting a rounded surface obliquely to the front, and a cultrated edge to the rear, inserted nearly in contact on the crest of the frontals, less remote from the orbits, and directed upwards and outwards with a semicircular sweep ; the rounded points being again recurved backwards and inwards, and the general surface vaguely marked with infrequent rugæ : forehead broad and flat : chaffron arched : muzzle less attenuated : ears erect, short, and striated, and tail short and deer-like, as in the last : vesture or fur also similar, without beard or mane : general colour dull slaty blue, paled on the surface, and more or less tinted there with brownish or fawn : head below, and belly and insides of the limbs near it, yellowish white : face, or nose rather, fronts of the intire limbs, a connecting band along the flanks, whole chest and tip of the tail, black : no disk on the buttocks : their mere margin and that of the tail, paled. Snout to rump sixty inches : mean height thirty-six : head, as before, eleven : tail with the hair seven and three quarters : ears five and three quarters : horns along the curve, twenty-four. Females smaller, with small straightish, suberect, depressed horns, directed upwards chiefly, and with the dark marks on the limbs and chest less extended than in the male ; frequently the chest is wholly unmarked. Young, with the colours deeper and more sordid ; the marks still less extended, and wanting wholly on the chest and flanks. Vulgo *Nāhořr* of the Nepalese.

N. B. Since the Prince of Musignano has published his account of the Musmon, it has become quite evident that our *Nāhořr* cannot be identified with that species ; and though the vaguer accounts of the Asiatic Argali render a like confident judgment in regard to the independence thereon of Ammonoides difficult of attainment, yet all

the now generally recognised diagnostics of the groups of the *Bovidae*, (Taurus, Bubalus, &c.) or who are ignorant of the shadowy nature of the existing marks of discrimination between Antelope, Ovis, and Capra, will, I apprehend, refuse to adopt the now suggested more enlarged application of Cuvier's principles. Either those principles are false, or this larger application of them is as legitimate as it is requisite. On these principles, (as on others,) *Cervus* and *Ovis* represent the extremes, and *Antelopa* and *Capra* the means: but there is a regular graduation from *Cervus* to *Antelopa*, from it to *Capra*, and from it again to *Ovis*; in such wise, however, that the two former fall naturally into one great group, and the two latter into another, *Cervus* and *Ovis* being the typical forms. And I may add as a proof how useful the new diagnosis now proposed is, and how harmonious in practice with other and admitted criteria, that, measured by this standard, our *Hemitragus* (the *Jharal*) is as clearly a caprine form as Ogilvy's *Kemas* (the *Ghoral*) is an antelopine one. Thus too the affinity of the Musks and Muntjacs to *Cervus*, however apparently anomalous they seem to be, is rendered palpably evident, and the soundness of our diagnosis consequently further corroborated.

With regard to *Ovis* and *Capra*, inter-se, Cuvier's 'forehead concave' for the latter, and 'forehead convex' for the former genus, are clearly erroneous marks; but those sometime since suggested by me, of 'males odorous,' and 'males not odorous,' as respectively characteristic of *Capra* and *Ovis*, I find confirmed by every day's experience: nor is this discriminative sign dependent, as supposed, on season in any degree, nor even on age after the animal has reached about four months, so soon is the odour developed in *Capra*.

*Nipal, March, 1841.*

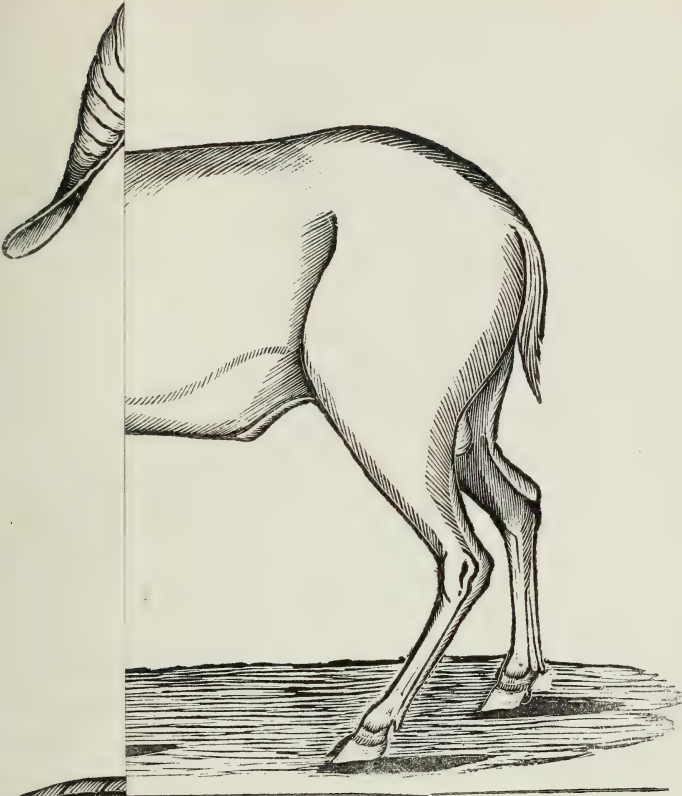
H. B. HODGSON.

*Explanation of the Illustrations.*

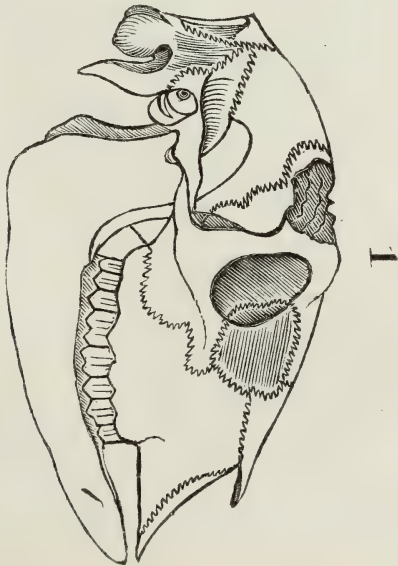
- I.—1. 2. Front view of the horns and skulls of our two species of Sheep, to prove their distinctness.
- II.—Sketch of *Ovis Nahoor*.
- III.—Lateral outline view of two skulls, designed to exhibit the characteristic form in *Cervus* and *Antelope* (1) on the one hand, and in *Ovis* and *Capra* (2) on the other: and I may add, that the animals having been females, and not specially selected, the distinction contended for is thus shown to be peculiarly valid.



te II.



III.



I

Plate I.

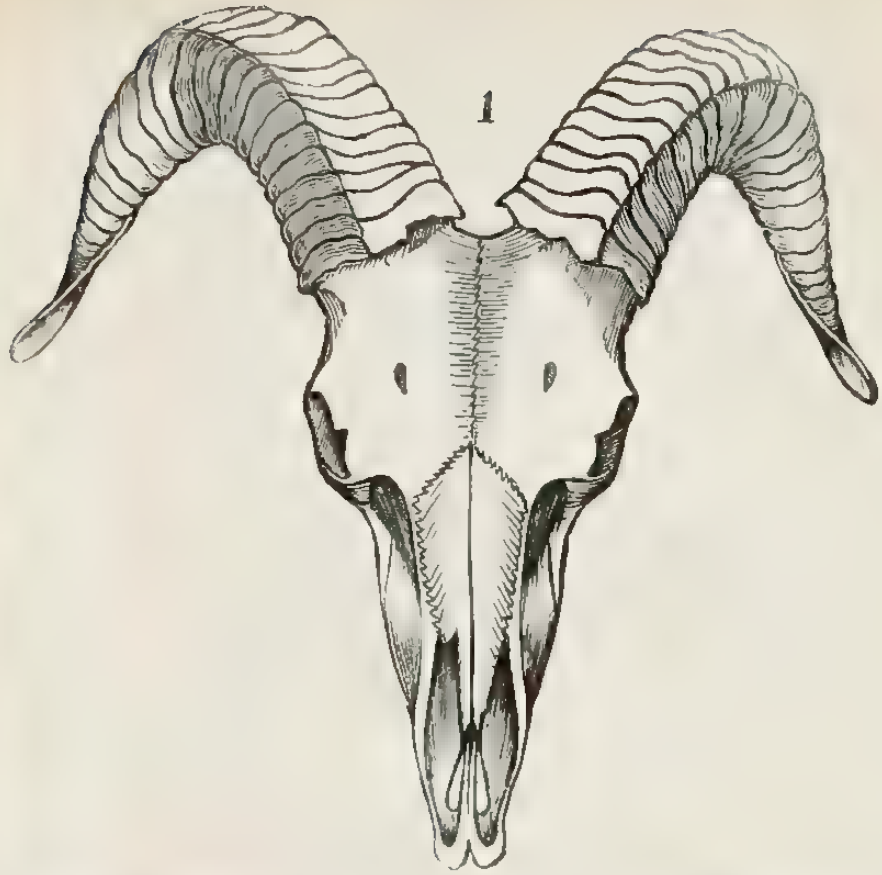


Plate II.

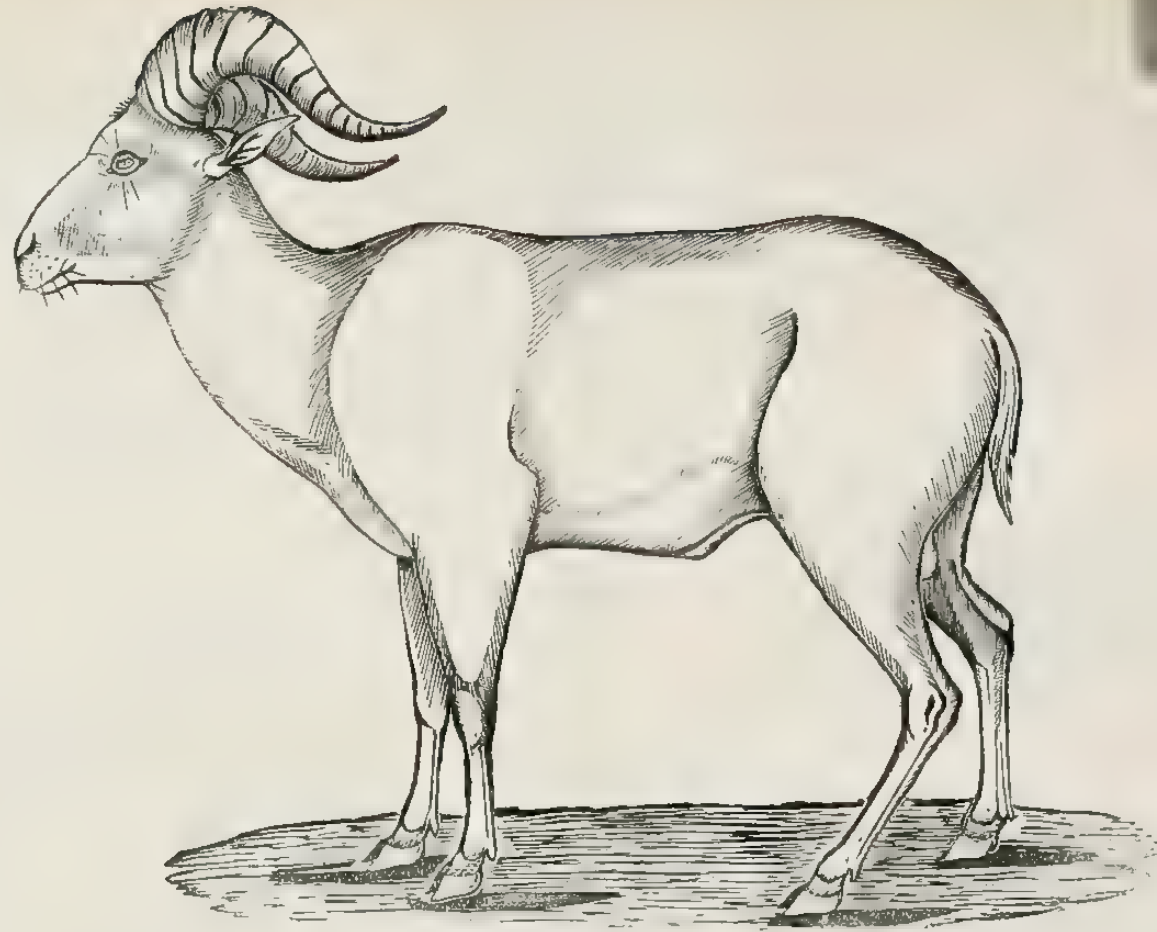


Plate III.

